

Work Order ID 128008

December-22-14 10:51:50 AM

128008

Page 1

Item ID: D4102-1

Accept

N9000040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Shim

Start Date: 12/22/14 Start Qty: 15.00

15

Cust Item ID:

Required Date: 12/22/14 Req'd Qty: 15.00

15

Customer:

Reference:

Approvals:

Process Plan: W

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4102

B

100

Cut blanks as per folio

100

Bandsaw

Jeaspa Bandsaw

Memo

4.950" long

110

110

HAAS 1

HAAS CNC vertical machine #1

Memo

MILL AS PER DWG AND FOLIO FA945

FOLIO REV: B

DWG REV: B

DEBURR

SCRAP

Scrap

15

0

DAS
44
9-89

15/01/08

15

0

DAS
44
9-89

15/01/08

128008

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 12/22/14 **Start Qty:** 15.00 ***15***

Cust Item ID:

Required Date: 12/22/14 **Req'd Qty:** 15.00 ***15***

Customer:

Reference:

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Run Start *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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QC2- Inspect parts off machine FAI/FAIB

0.00

120

OC

Memo

0.00

Quality Control

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

Work Order ID 128008***128008***

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December-22-14 10:51:50 AM

Item ID: D4102-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Shim
Start Date: 12/22/14 Start Qty: 15.00 ***15*** Cust Item ID:
Required Date: 12/22/14 Req'd Qty: 15.00 ***15*** Customer:
Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC3- Inspect Part Finish	0.00							
150									
QC	Memo	0.00							
Quality Control									P10 →
160	Identify as per dwg & Stock Location: _____	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

~~SCRAP~~
15-1-15

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☒</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☒</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☒	Engineering ☐	Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☒	Engineering ☐															
Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐	15-01-29	100	15	found at inspection a large amount of porosity in material. R.C. material.	 02/2014 15/2/14	Scrap + destroy	DAS 38 9-89 JAN 15 2015	DAS 38 9-89	PD 15-01-15
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☒									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

December-22-14 10:46:05 AM

Work Order ID: 128008

128008

Parent Item: D4102-1

D4102-1

Parent Item Name: Shim

Start Date: 12/22/14

Required Date: 12/22/14

Start Qty: 15.00

Required Qty: 15.00

Comments: IPP REV:A NEW ISSUE 10-07-05 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.250X04.00 0		Purchased	No			100	f	14.0000	0.42	6.63158			
										DAS			
										44			
										9-89			
										15/01/03			

M6061T6B0 250X04 000

6061-T6 Bar .250 x 4.00

Location

Loc Qty

Loc Code

MAT001

14

124443

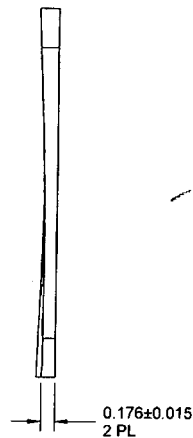
2

m127464

12

2'

4.13'



0.239±0.015
2 PL

8

R45.0

B
B2-1

ENGRAVE ON THIS SIDE

0.152 REF

0.130⁺⁰₋₀

B

W/12/2008

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
PER DART SPEC. M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4102-1" & B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.30 lbs
- 8) SURFACE FINISH MINIMUM 250 MICROINCH
- 9) ENGRAVE "UP & ARROW" TO A DEPTH OF MAXIMUM 0.020 IN THIS LOCATION WITH A TOOL TIP RADIUS OF 0.063

B	RE-DESIGN D4102-1/2-3/3 (ZN B4-1, B4-2, B4-3)	RF	10.08.06
A	NEW ISSUE	RF	10.05.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4102 TITLE SHIM COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF	DRAWING NO.	REV.
DATE	10.08.06	TITLE	SHEET 1 OF 1
		SHIM	SCALE
			NT

DART AEROSPACE LTD		Work Order:	128008
Description: SHIM.		Part Number:	D4102-1
Inspection Dwg: D4102 Rev: B		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.426	+/- .010	.426	✓		FK-04	Vern.
.495	+/- .010	.495	✓			
.630	+/- .010	.630	✓			
.675	+/- .010	.675	✓			
1.010	+/- .030	1.013	✓			
1.413	+/- .010	1.413	✓			
2.656	+/- .010	2.656	✓			
2.90	+/- .030	2.93	✓			
3.035	+/- .010	3.035	✓			
3.510	+/- .010	3.510	✓			
3.644	+/- .010	3.644	✓			
4.00	+/- .030	3.996	✓			
.600	+/- .010	.600	✓			
.718	+/- .010	.718	✓			
1.125	+/- .010	1.125	✓			
1.534	+/- .010	1.534	✓			
2.290	+/- .010	2.290	✓			
2.315	+/- .010	2.315	✓			
3.418	+/- .010	3.418	✓			
3.770	+/- .010	3.770	✓			
3.940	+/- .010	3.940	✓			
4.234	+/- .010	4.234	✓			
4.75	+/- .030	4.75	✓			

Measured by:	DAS 44 9-89	Audited by:	<i>[Signature]</i>	Preliminary Approval:	
Date:	15/01/03	Date:	15/01/05	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

[Signature] 10.04.15

FIRST ARTICLE INSPECTION CHECKLIST

DAS

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15